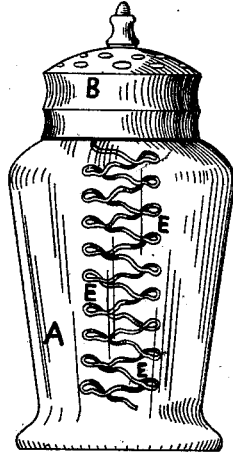


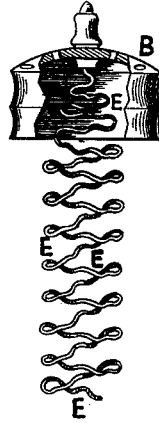
C. P. CROSSMAN.  
Salt-Bottle.

No. 196,076.

Patented Oct. 16, 1877.



*Fig. 1*



*Fig. 2.*

*Witnesses:*

*H. S. Talbot*

*Edward Edmunds*

*Inventor:*

*Chas P. Crossman,*

*By*

*Sylvanus Walker*  
*Atty*

# UNITED STATES PATENT OFFICE.

CHARLES P. CROSSMAN, OF WEST WARREN, MASSACHUSETTS.

## IMPROVEMENT IN SALT-BOTTLES.

Specification forming part of Letters Patent No. **196,076**, dated October 16, 1877; application filed August 10, 1877.

### *To all whom it may concern:*

Be it known that I, CHARLES P. CROSSMAN, of West Warren, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Salt-Bottles, of which the following is a specification:

The object of my invention is to provide a cheap, simple, convenient, and efficient pulverizer to be placed within a salt bottle or caster, to prevent the salt or other contents thereof from becoming caked or lumped, so as to interfere with a free discharge of the same through the perforations in the cap or cover of such bottles, when shaken in the usual manner; and it consists of a flexible corrugated spiral-wire pulverizer, made in tubular form, and rigidly connected by one end to the center of the perforated cap or cover, its lower or opposite end reaching to near the bottom of the bottle or caster, as will be hereinafter more fully explained and set forth.

Figure 1 is a perspective view of a salt-bottle having my invention applied thereto. Fig. 2 is a similar view of the same removed from the bottle.

A represents a glass salt bottle or caster, provided with a perforated cap or cover, B, connected to the neck of the bottle by means of a screw-thread, as heretofore. E is a flexible corrugated spiral-wire pulverizer, rigidly attached to the interior of the cap or perforated cover B by means of solder, a screw-thread, or other desired manner, and hanging pendent from the cover. Its upper portion, surrounded by the cap or cover, is wound somewhat smaller or conical, leaving the end of the wire so as to project from the top coil at a right angle and at the center of the same. The lower end of the coiled spiral corrugated pulverizer reaches to near the bottom of the bottle or caster, as shown. The wire pulverizer may be tinned or coated, as desired. The bottle A, being filled with salt or other pulverized material desired to be discharged or sprinkled from the perforated cover, the spiral corru-

gated flexible pulverizer E is inserted in the bottle and the cap B screwed down in place, which act carries the lower end of the spiral-wire pulverizer down into the salt in the bottle, when it is ready for use in the usual manner, when a slight shake will cause the flexible pulverizer to vibrate and thus move the salt and pulverize the same in a very thorough and expeditious manner, so it will pass through the perforations in the cap or cover freely.

The nature or construction of the pulverizer is such that it can move in every direction within the bottle, so as to prevent moist salt from caking; and in case it should become caked or solidified, a sharp blow upon the bottom of the bottle with the palm of the hand will remove the same by causing the coiled spiral spring pulverizer to recoil or vibrate through the same, so as to bring its large corrugated pulverizing-surface in contact with the caked salt and reduce the same to fine particles, ready for use. This pulverizer, being somewhat free to move about within the bottle, is, by means of its suspension from the cap, prevented from striking against the bottle to break the same, as might be the case were it of greater weight and left loose or disconnected in any manner with the bottle or cap.

I am well aware that Letters Patent were granted to Hiram J. White for improvement in salt-bottles, No. 188,709, dated March 20, 1877. Therefore I broadly disclaim such invention.

Having thus described my invention, what I claim is—

The above-described pulverizer, consisting of the flexible spiral corrugated wire E, rigidly connected to the perforated cap or cover B, in combination with the salt bottle or caster A, all being constructed and arranged as and for the purposes set forth.

CHAS. P. CROSSMAN.

Witnesses:

CHAS. G. MORGAN,  
DANIEL G. HITCHCOCK.